

P. Yuan et al.  
U.S.S.N. 09/718,669  
Page 2

(b) a tape carrier having a device hole for accommodating the semiconductor chip therein and a plurality of side-situated lead-bonding areas and corner-situated lead-bonding areas surrounding the device hole;

(c) a set of inner leads, including:

(c1) a group of I/O leads, which are bonded between the respective I/O pads on the semiconductor chip and the side-situated lead-bonding areas on the tape carrier, so as to allow the semiconductor chip to be electrically connected to the tape carrier by the I/O leads; and

(c2) a group of dummy leads, which are bonded between the respective dummy pads on the semiconductor chip and the corner-situated lead-bonding areas on the tape carrier, and thereby provide firm support to the corners of the semiconductor chip, so as to hold the semiconductor chip in position with respect to the tape carrier and to enhance mechanical strength of the tape carrier package structure.

6. (Amended) A tape carrier package structure, which comprises:

(a) a semiconductor chip having:

(a1) a plurality of I/O pads arranged along the sides thereof; and

(a2) a plurality of dummy pads arranged on the corners thereof;

(b) a tape carrier having a device hole for accommodating the semiconductor chip therein and a plurality of side-situated lead-bonding areas and corner-situated lead-bonding areas surrounding the device hole;

(c) a set of inner leads, including:

(c1) a group of I/O leads, which are bonded between the respective I/O pads on the semiconductor chip and the side-situated lead-bonding areas on the tape carrier, so as to allow the semiconductor chip to be electrically connected to the tape carrier by the I/O leads; and

(c2) a group of dummy leads, which are bonded between the respective dummy pads on the semiconductor chip and the corner-situated lead-bonding areas on the tape carrier, and thereby provide firm support to the corners of the semiconductor chip, so as to hold the semiconductor chip in position with respect to the tape carrier and to enhance mechanical strength of the tape carrier package structure, and which are spaced at substantially the same pitch as the I/O leads.